An Argus Specialist Publication

No. 60 May 1-7, 1984

24-page supplement for VIC-20 and Commodore 64 users – add-on guide, using graphics, a fun VIC-20 game, and screen designer





Rabbit: 'We'll go on without Alan'

40p

Heather Lamont, sole boss of Rabbit Software following Alan Savage's suicide, has vowed: "We will carry on."

Rabbit's 25-strong staff were stunned when they heard that Mr Savage, 36, had hung himself after a motorway crash.

He had been driving his white Mercedes, a recently restored collector's mdoel, when he ran a VW Polo off the M10 in Buckinghamshire.

The VW finished upside down in a ditch, trapping and injuring a woman driver of 42 and her 73-year-old friend.

Mr Savage left on foot leaving behind a woman friend — after an argument with the driver and police were alerted because the VW driver thought *Continued on page 6*

Computers help with the cooking

In a bid to make computers more useful around the house, two companies have launched menu-planning programs.

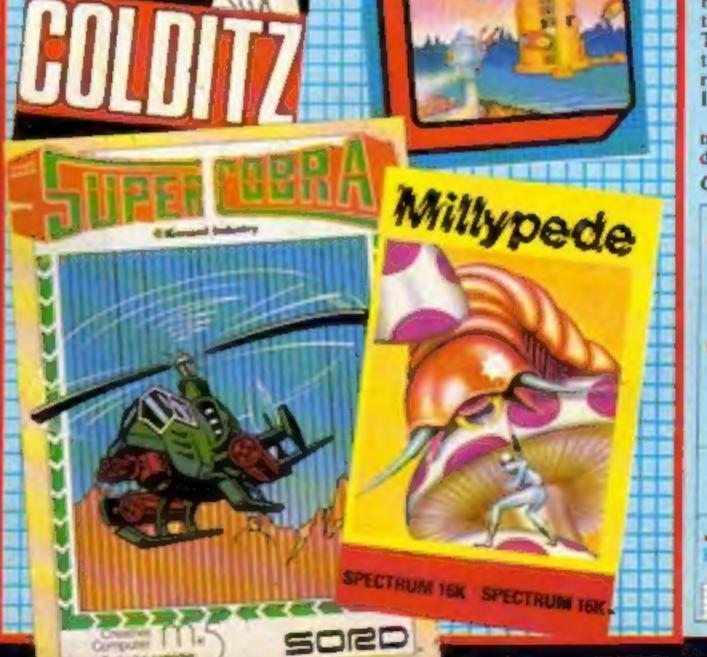
One of them, for the BBC micro, is by husband-and-wife team John and Yolande Smith. The other, from Bug-Byte for the Spectrum, contains 80 recipes from professional chef Ian Hoare. Mrs Smith, a 53-year-old mother of two, said: "Women don't use computers, so what Continued on page 6

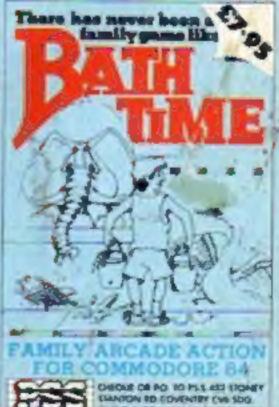
Software reviews for: Spectrum, BBC, Oric, Sord, TI, Commodore 64

Five games to type in for your Spectrum and Oric

Tatung's new micro: all the details

PLUS J.S. Scene, news, charts...







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May 1-7, 1984 No. 60 CONTENTS **BUY THIS SPACE** BUY THIS SPACE TO ADVERTISE YOUR TO ADVERTISE YOUR LATEST PRODUCTS! LATEST PRODUCTS! **Ring John or Stuart Ring John or Stuart** on on 01-437 0626, NOW! 01-437 0626, NOW! REGULARS Special Report: Tatung's new micro 5 Full details of the challenger to the BBC computer Our man in California reports Software charts Our exclusive guide to arcade and non-arade games, plus Top 10s for all popular micros And they done will Ret SOFTWARE REVIEWS Utilities and games for the Commodore 64, BBC and Oric/Atmos Your computer as a teacher, with software for the Spectrum and Oric For the fun of it PROGRAMS New games for the Sord M5 and the TI-99/4A There's a free 24-page supplement in this Spectrum issue for users of the VIC-20 and Three quality-tested games to type in: tackle the Hall of Mirrors, sort the mail and play patience Commodore 64. This is what's inside it: a buyer's guide to add-ons Oric Two games to play: find the keys to escape ... eat the Mouldfish to

• a Pixel-Pad screen designer for the

Commodore 64

how to create good-looking graphics for YOUP GOMES

a free-to-enter competition for Bubble Bus software

a game with a difference for the VIC-20

JEINE

VIC-20 and Commodore 64

... you'll find listings for these two computers in our 24-page supplement

Readers: we welcome your programs, articles and tips --- see the panel in this issue for details Software houses: send your software for review to the editor. Contact him for competitions and other promotions, as well

		A CONTRACTOR OF
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which I certainly have not seen in any	PLEASE RUSH ME
other game. 99 HOME COMPUTING WEEKLY	ANDROID TWO SPECTRUM 48K £5.95
HOME COMPUTENG WEEKLY	ANDROID ONE SPECTRUM 16K-48K £4.95
66 Striking 3D graphics 99	TOTAL VALUE £
SINCLAIR USER	Games suitable for keyboard and joystick
66 enough to keep you playing until the wee hours, Superb. 99 POPULAR COMPUTING WEEKLY.	ARE BOCK LETTERS PLANE
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· SEEK OUT ANDROID TWO AT W.H.SMITH, BOOTS, JOHN MENZIES AND OTHER GOOD RETAILERS ·

The Elnstein computer with Tatung's colour monitor

Can Tatung tackle the BBC micro? Read Paul Liptrot's full report on its aims and what the **Einstein offers**

Revealed: the Einstein micro from Tatung

ABS

Tatung is aiming to hit computers like Acom's BBC micro with its new Einstein, which offers 64K of RAM, a 3in disc drive and 67 typewriter-style keys for £499,

Sales boss Mike Bayliss said it would cost an extra £560 to give the £399 BBC computer the same features.

Made and designed in Britain by the UK arm of a giant Taiwanese company, Einstein deliveries start in June and 50,000 are planned for this year.

Dr Bayliss said the Einstein was an up-market computer designed for the home enthusiast. education and small business. An Apple IIE with similar specification would be £1,010.

The Einstein's disc operating system handles programs running under CP/M, the industry standard system for business software. The DOS and BASIC are on a disc supplied with the computer. This is to allow other languages to be used without losing memory to a built-in BASIC. Asked about the Amstrad computers, launched a week earlier, technical boss Roy Clarke said the Einstein was 25 per cent faster, the BASIC was more extensive, the keyboard more reliable and longer lasting and more RAM was available to the user. When BASIC had been loaded, 48K could be used and just over 43K was available with both BASIC and the DOS loaded. Amstrad's two cassette computers had 42K available to BASIC. The available memory in its two disc models was not known. Amstrad's prices are £329 for cassette model with colour monitor and £529 for 3in disc model with colour monitor. With green screen the prices are £100 lower. Dr Clarke said the Einstein was intended to fill the gap bet-

Einstein BASIC keywords

MIDS

ERRS

EXP

FILL

FOR

colour

DECOR

HEXS

GOSUB

key input INCHS

INPUT

INPUT=

INTeger

KBD4

LEFTS

LENgh

LSTPrint.

LET

LIST

KEY define

EVALuate

FMT format

FN function

ADC analogue/ digital AND APPEND ASC AUTO line numbering **BCOL** background colour BEEP **81N\$** BTN CHAIN CHRS CLEAR CLOSE CLS CONT COS CREATE file DATA DEEK **DEFine** function DEGrees DELete DIM DIRectory DOKE DOS DRAW DRIVE ELLIPSE

ERL error line MODulas MON m/c monitor **MULI** multiple of string MUSIC NEW NEXT GCOL graphics NOT NULL OFF ON **ON... GOTO** HOLD paintse ON... GOSUB **OPEN** disc file **INCH** wait for OR ORIGIN OUTput INPut from post PEEK PLOT POINT IOM //o modify POKE **KBD** keyboard POLYgen POP POSition of cir. function keys PRINT **KEY LIST** coments PRINTAT PROTest of function contents PSG sound gan. PTR pointer **RADian** READ REM LN natural log. REName

RST metart RUN SAVE SCRNS. SEP redef. separators SGN SHAPE SIN SIZE memory left SPEED output delay (0-255) SPRITE SPRITE OFF SOR STEP STOP STRS SWAP bynes TAB TAN TCOL text colour TEMPO THEN T13 sot/print time TO UNLOCK file UNPLOT VAL VDEEK VDOKE VERIFY VOICE VPEEK YPOKE TH of text

the 32 error messages. It includes a full screen editor. Tatung says the DOS is designed to be easily understandable by first-time users.

Input/output RS232-C, Centronics, four-channel analogueto-digital converter for joysticks etc, eight-bit user port, external disc drive connector, UHF TV. YUV/RGB for monitor, and the Tatung "Pipe" - a 60-way general purpose connector.

Sound: three channels, plus noise, with volume control and amplitude, pitch and evelope control in BASIC. Speaker measures 3¼ in by 2¼ in.

Software: games would cost £7-£15 and business software up to £250. Companies writing for the Einstein included: A&F, Kuma, Gem Software, Crystal, Leasalink Viewdata and Micro Simplex. At least 50 would be available straight away. Peripherals: joysticks, £5; Tatung branded Shinwa dot matrix printer with Tatung ROM, £229; internal and external disc drives. As a launch offer there will be vouchers for £10 off the printer, extra drive and Tatung's 14in colour monitor, usually £240. Promised soon: a Prestel software upgrade. At the end of the year there would be a unit for 80column display, greater resolution, and more sprites, plus a speech synthesiser. Tatung has an annual turnover of £500m and 25,000 employees - 800 of them in the UK. It makes home appliances, power plant and industrial equipment and has 30 subsidiaries, half in China and the rest in Asia, South Africa and Europe. The Einstein was designed in its Bradford laboratory and is made in Bridgenorth, Shropshire, which also manufacturers products like Deccacolour TV sets. Tatung bought the plant from Decca in 1981.

ELSE	LOAD
END	LOCK
EOF	LOG
ERAse	MAGeify
ERRor	MGE merge

CENUM	WAIT pause
RESTORE	WIDTH of text
RETURN	XOR
RIGHTS	ZONE print area
IND	

ween computers costing £200-£300 and £1,000. He said: "It will be bought by people upgrading from micros like the Spectrum, those who want a better computer from square one and by businesses,

There is so much talk of jam tomorrow. What we say is available will be available, not sometime next year or maybe never. And there's more than one offender."

The processor: Z80A, used in the Spectrum and others, running at 4MHz. Screen display is handled by a separate 16K Texas Instruments chip and the operating system is in an 8K ROM.

Display: 56 alphanumeric characters and 160 symbols - in a 5 x 7 grid — all of which can be redefined, plus 32 sprites, four in one line.

No. of colours			chars.
16	256	192	40/32 x 24

Keyboard: OWERTY with graphics symbols etched on fronts, eight function keys, [1] control and cursor keys.

Disc drive: made by Teac, each 3in disc has a claimed capacity of 250K per side, or 200 K when formatted. Tatung branded discs are to be available. A second drive, costing £149, can be installed above and to the right of the keyboard. A separate drive will be £189 and a separate twin drive is planned.

Language/operating system: Tatung/Xtai BASIC, written by Crystal Research, allows users to add to the BASIC keywords and

NEWS

Rabbit

From front page

he may have taken pills with drink.

Police searched with tracker dogs and Mr Savage's body was found slumped against a tree by a man walking his dog. He had hung himself with his belt.

Miss Lamont revealed that Mr Savage had his stomach pumped out after an earlier attempt to kill himself with an overdose. And two other cars, a BMW and a Jaguar-Daimler, had been badly damaged in recent accidents with Mr Savage at the wheel.

Miss Lamont said: "He had personal problems and when your mind isn't together they seem enormous. He felt his world was falling apart. I don't know if he was schizophrenic, but this is the sort of thing that happens. Perhaps the car crash was the last straw.

I had spoken to him that morning and he was fine. Obviously his mind was unstable and something clicked and he just couldn't cope. It

was nothing to do with Rabbit — the company is doing fine.

"His ex-wife broke the news to me. I was absolutely sick. I can't explain the feeling. I was so totally shocked that I felt ill."

On the surface Mr Savage seemed to have everything to live for. A few days before his death, he told HCW editor Paul Liptrot that Rabbit was thriving and spoke of his personal plans. Rabbit's premises near Wealdstone also includes Soft Copy, trade name for its own cassette duplication and blank tape operation.

Mr Savage, who trained as a communications engineer, was in the process of buying a £200,000 house in Hertfordshire and also planned to remarry. He recently had a hair transplant.

Miss Lamont, formerly an assistant manager at British Home Stores, joined Mr Savage in a technical staff agency which later turned to computer retailing under the name Cream Computers. Rabbit was formed about three years ago and computer sales ended.

You could be on our pages

We welcome programs, articles and tips from our readers. If you feel that your work meets our standards, please submit it to us for consideration for publication.

 Programs must always be sent on cassette. Listings are helpful, but not necessary. Check carefully that they are bug-free. Include details of what your program does, Now Rabbit has a range of 17 titles for the Spectrum, VIC-20 and Commodore 64 — about 36 products counting those available for more than one computer.

A new title, Stalag I, a comic arcade game for the Commodore 64, has just been released and Vortex, an arcade game for the Spectrum and Commodore 64, is due out in mid-May.

Miss Lamont said she owned 51 per cent of Rabbit's shares and Mr Savage owned the remaining 49 per cent. A will had not yet been found, but if it turned out that Mr Savage's shares went to his mother Miss Lamont said she would raise the money and offer to buy them. Rabbit's three-strong board consisted of Miss Lamont, Mr Savage and Miss Lamont's father, Arthur.

Miss Lamont said: "We are a good, solid company. We are in about the middle of the range. We are not like Imagine or the rest of them and we are not down at the bottom. But I don't really want to be in the big league."

Mr Savage, who lived in Willesden, was a car enthusiast. As well as the BMW, the Mercedes and the Jaguar-Daimler, he also drove a restored E-type Jaguar.

Asked if personal relationships could have led to the tragedy, Miss Lamont said: "Alan had been unstable for a long time and a lot of people passed through his life. There's no blame to put on anybody."

Paying tribute to him, she said: "OK, he had a troubled mind but he was a super person. A lot of people cared for him.

"He had a flair for the business. He gave a lot to Rabbit and he got a lot of enjoyment out of it. He had everything to live for but because of his mental state he could not see it."

Rabbit's software director, Terry Grant, said: "I was devastated. Everyone here is upset but we are all getting on with out work."



From front page

can you do to attract them?

"At first I thought of a recipe book, but you can't take a computer into the kitchen. Then I thought: 'What is the most boring job you have to do?' That's deciding what to cook.

"Most women have 200 or 300 recipes in their minds, but you forget them and end up having chips every day."

What's to Eat?, on cassette for £9.95 and a disc version at £12.95, is designed to plan meals for everyday and for special occasions. When the choice is made — from a claimed 20,000 possible combinations — the menu is displayed, ingredients listed and a shopping list produced.

The program was written largely by Mr Smith with data from his wife, based on her years of cooking for the family.

Mr Smith, 54, a former electronics engineer, and Mrs Smith, a former civil servant, also produce business software. They call themselves Shumwari Associates. Mr Smith said Shumwari meant small friend in a south-east Asian language.

Bug-Byte's Computer Cookbook is in a two-cassette pack — one for the index and the other for the recipes — and costs £9.50.

Mr Hoare said his program started with a request from a friend for a popular recipe. He said: "As a joke, I tried to put the recipe into the computer." After months of work, and the promise of a Bug-Byte contract, he has finished a program which now contains more than 80 of his recipes in imperial or metric measures and for any number of people up to 200. Wines to accompany the dishes are also given. Bug-Byte says the program is more than just a cookery book. Using the index you could, for example, tell the computer you had some pork in the fridge and the program will select suitable recipes. It will also list recipes by category, such as starters and desserts, simplicity and country of origin. Shumwari Associates, 12 Marlin Ct, Marlow, Bucks SL7 ZAJ Bug-Byte, Mulberry Hse, Canning Place, Liverpool L1 8JB

how it works, variables you have used and hints on conversion.

 Articles on using home computers should be no longer than 2,000 words. Don't worry about your writing ability — just try to keep to the style in HCW. Articles most likely to be published will help our readers make better use of their micros by giving useful ideas, possibly with programming examples. We will convert any sketched illustrations into finished artwork.

 Tips are short articles, and brief programming routines. Your hints can aid other computer users.

All submissions will be acknowledged and the copyright in such works which will pass to Argus Specialist Publications Ltd will be paid for at competitive rates. Keep a copy of your work and include an SAE. Label everything clearly and give a daytime and home phone number if you can. All work for consideration should be sent to:

Paul Liptrot, Home Computing Weekly, No.1 Golden Square, London W1R 3AB

Help for your budget

Now available for the CBM 64: Cash Controller, to help you with budgeting and banking. Three areas of finance are catered for by this program: bank account, budget and mortgage. Printouts of statements and budgets are possible and data may be saved to cassette or disk.

Richard Shepherd Software has converted this program from the Spectrum, and both CBM 64 and Spectrum cassettes cost £9.95. Commodore disk version costs £14.95.

Richard Shepherd Software, Elm House, 23-25 Elmshott Lane, Cippenham, Slough, Berks THE NAME IN VIDEO GAMES

DEMOLATOR Following the Thousand year war

with the Alien Demolators the last remnants of the human race are being transported across the galaxy in cryogenic suspension aboard the B.S. Quinn (Battle Star)

> The Demolators however have invaded the cargo bay and it is your job to destroy the Demolators and to protect the human cargo. All you have to defend Humanity with is Xeno (popularly named "the Phobe") the

> > ultimate his and fire an ultrasonic Cannon to defend humanity wit



SPECTRUM

Hall of Mirrors by David Nowotnik

Here's a game for all Spectrum users which should be both fun and educational. The main purpose is to demonstrate the principles of reflection in mirrors. And this you'll have to grasp quickly if you're aiming to achieve high scores.

When the game starts, the hall of mirrors is drawn and the computer gives you an aerial view. The walls of the building ar lined with mirrors which are arranged to alternate in the direction they face. More mirrors will appear inside the hall; some will always appear in the same place, while others are placed randomly, so each game is different .

There is one exit to the hall, at the top of the screen. By the exit is a colour scale, which is your target. The object of the game is to direct a beam of light such that it eventually hits one of the coloured boxes. If you can, you will obviously go for the green box for the maximum score.

On the screen you'll see a flashing "greater than" symbol on the left of the hall. This is the point from which the beam of light will emerge. It starts off going horizontally across the screen. You have to place a number of mirrors in the beams path to deflect the light onto the target box.

How it works 100-150 move character set from ROM 160 redirects CHARS 178-210 define new characters 240-290 machine code to block move attribute file 1000-1250 set up the board 1260-1280 position set mirrors 1290-1340 position random mirrors 1500-1810 select positions and place mirrors onto the board 1815 machine code to copy the attribute file 1820-1920 draw the light beam 1950-1990 reflect the light beam 3000-3060 score message 5000-5040 light beam plotting routine You can place up to five mirrors in the hall. To place a mirror, you'll need to enter the horizontal and vertical coordinates, and the direction of the mirror. Main variables **a,b** READ variables att attribute check c.c\$ INPUT variables for mirror type h.h\$ INPUT for horizontal position of mirror mS, s\$ mirror characters the number of dots to be plotted. score the running total v,v\$ INPUT for vertical position of mirror x,y co-ordinates of the random position mirrors x1,y1 used in position calculation zq a dummy variable used when calling machine code



ors, sort the moil Soley beltiones A theat for the solution of th

To help you with the coordinates, there are letters along the sides of the hall, and the inside of the hall is mapped out like a chess board. So, decide where you want to place a mirror, enter the co-ordinates of that position when you get the screen prompt, and tell the computer which mirror type you want. This game uses double

they will reflect on both sides.

Once you have placed all the mirrors you want (up to a maximum of five) the light beam will be "fired". But to let you see what happens, I have dramatically reduced the speed of light! The beam will leave a trail to let you see where it has been.

And if you've planned the positions of your mirrors well, surface mirrors; that is, the light beam should

eventually hit one of the coloured boxes. However, if you find that all your plans have gone wrong, then you can start again by pressing CAPS SHIFT and S.

After a few goes you should be able to achieve the maximum score most times. And you should have grasped the ancient physics principle, that "the angle of incidence equals the angle of reflection".

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the third is t

PROGRAMS



The Sorting Room by A.G. Bird

Your job as a Post Office employee is to direct the mail in the sorting room.

Due to wear and tear on the conveyor beit, however, sorting mail does tend to get harder and harder. But as a trusted employee you must do your best.

How it works 15 keyboard BEEP 20-60 initialise 100-170 start game, part of conveyor chopped 180-240 draw scene 250-280 name and address on **HOUR** 290-300 letter slide 400-580 main loop for letter's journey 700-710 subroutine for letter down slide 1000-1100 horizontal movement on conveyor 1 2000-2100 correct box check 2500-2520 end of game routine 8000-8010 Instruction 9000-9040 graphics

Variables

aS, bS first and fourth, second and third conveyor belus
bS city
x,y letter co-ordinates
a,b,c substring numbers
sort number of letters
n main loop
m part of conveyor chopped
x belts two and three movement
h slide drop
a counter for slide drop
c correct location (score)

Patience by Tim Lang

This is a version of Patience which demonstrates the use of strings and arrays to set up a pack of cards, shuffle and deal and keep track of the play. Note the use of the hash character to print into the lower portion of the screen instead of using INPUT which requires the ENTER key to be pressed after each entry.

There are two small pieces of machine code in this game, so once you've entered the listing into your Spectrum, do SAVE it on tape before you attempt to RUN it, just in case. You only need one slight mistake with machine code to give you a crash, from which the only recovery is to pull out the plug — and lose the program!

THIN!

DALD

Screen damp of Hall of Mirrors

• In nearly all cases, the CAPITALS in PRINT statements should, unless text, be entered in GRAPHICS mode. In Patience these are indicated by an underline.

Round 2 12344321

How It works 100 instructions - expand or leave out 1000 DIMenson arrays and call subroutine at 1560 to set user-defined graphics 1010 shuffle and deal cards 1150 main loop 1180 detect last card 1370 detect a wrong entry and loop back 1410 subroutine to change J.Q etc. into numbers 1460 calculate score and offer new game.

SPECTRUM

Listing for Hall of Mirrors

Hall of Mirrors 10 REM by David Nowotnik 20 REM Feb. 1984 30 REM 40 REM 50 REM Initialise 60 REM 100 CLEAR 30000 110 FOR 1=31000 TO 31011 120 READ a: POKE i,a 130 NEXT 1 140 DATA 33,0,61,17,0,124,1,0,3,237,176,201 150 LET zg=USR 31000 160 POKE 23607,123 170 LET am. 5: LET x=32496 180 FOR 1 = 0 TO 7 190 LET a=a*2: LET b=128/a 200 POKE x+i,a: POKE x+i+8,b 210 NEXT 1 220 LET m#=CHR# 126 230 LET n##CHR# 127 240 FOR 1=30002 TO 30025 250 READ a: POKE i.a: NEXT i 260 DATA 33,0,88,17,148,117,1 270 DATA 0,3,237,176,201 280 DATA 33,148,117,17,0,88,1 290 DATA 0,3,237,176,201 500 REM Score 510 LET score=0: LET round=1 1000 REM Set up the board 1010 PAPER 7: INK 0: BORDER 7: CLS 1020 PRINT TAB 8: "HALL OF MIRRORS", " Round ";round," Score ";score 1030 PRINT AT 4,4;: FOR i=1 TO 12: PRINT INK 1;m\$; INK 2;n\$;: NEXT i 1040 FOR i=5 TO 18 STEP 2 1050 PRINT AT 1,4; INK 2;n#;AT 1+1,4; INK 1;m# 1060 PRINT AT 1,27; INK 1;m\$;AT 1+1,27; INK 2;n\$ 1070 NEXT 1 1080 PRINT TAB 4:: FOR 1=1 TO 12: PRINT INK 2:n\$: INK 1:m\$: NEXT i 1090 PRINT AT 4,12:" 1100 BRIGHT 1 1110 FOR 1=5 TO 18STEP 2 1120 FOR j=5 TO 26 STEP 2 1130 PRINT AT 1, j; " ":AT 1+1, j+1;" " 1140 NEXT j: NEXT i

```
1150 BRIGHT 0
1160 PRINT
1170 PRINT TAB 5; "ABCBEFGHIJKLMNOFORSTUV"
1180 PRINT AT 3,12;
1170 FOR j=1 TO 4: PRINT PAPER J;" ";: NEXT j
1200 FOR j=4 TO 1 STEP -1: PRINT PAPER j:" ";: NEXT j
1210 PRINT AT 2,12: "12344321"
1220 FOR 1=5 TO 18
1230 PRINT AT 1,28;CHR* (1+60)
1240 NEXT j
1250 PRINT AT 16,3; FLASH 1;">"
1260 PRINT AT 5,11; INK 1; CHR$ 126; AT 5,20; INK 2; CHR$ 127; AT 8,15; INK 2; CHR$ 1
27: INK 1:CHR$ 126
1270 PRINT AT 10,14; INK 2; CHR$ 127; AT 10,17; INK 1; CHR$ 126
1280 PRINT AT 12,13; INK 1; CHR$ 126; AT 12,18; INK 2; CHR$ 127
1270 FOR i=1 TO 12
1300 LET x=5+INT (RND*7)
1310 LET y=11+INT (RND+10)
1320 IF SEREEN$ (x,y)<>" " THEN 60 TO 1300
1330 LET a=INT (RND+1.5): PRINT AT x,y; INK a: CHR$ (25+a)
1340 NEXT 1
1500 REM Main Routine
```

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PROGRAMS

1510 FOR i=1 TO 5 1520 INPUT AT 0,0; ("Mirror ";i;". Enter horizontal coordinates (A to V) ") : LINE, h\$ 1540 IF LEN h\$<>1 THEN GO TO 1520 1550 LET h=CODE h\$: IF h>90 THEN LET h=h-32 1560 IF h<65 OR h>86 THEN GO TO 1520 1570 LET h≈h-60 1580 POKE 23168+h.184 1590 INPUT AT 0,0; ("Mirror ";i;". Enter vertical coordinates (A to N) "); LINE V\$ 1610 IF LEN v\$<>1 THEN GO TO 1590 1620 LET V=CODE V\$: IF V>90 THEN LET V=V-32 1630 IF v<65 OR v>78 THEN GO TO 1590 1640 LET V=V+60 1650 POKE 22556+v*32,184 1660 LET att=ATTR (v,h) 1670 IF SCREEN\$ (v,h)=CHR\$ 32 THEN 60 TO 1720 1680 PRINT #1; "This square is already occupied" 1690 PAUSE 200 1700 POKE 23168+h.56: POKE 22556+v#32.56 1710 GO TO 1520 1720 PRINT AT y.h: FLASH 1:" " 1730 PRINT AT 21,0;"Mirror ";i;". Enter mirror " 1740 INPUT (" type (";CHR\$ 126;" =1, ";CHR\$ 127;" =2) "); LINE c\$ 1750 IF LEN c\$<>1 THEN GO TO 1740 1760 LET c=CODE c\$-48: IF c<1 OR c>2 THEN 60 TO 1740 1770 PRINT AT 21,0:" 반송. 1780 PRINT AT v,h; INK c;CHR\$ (c+125) 1790 POKE 23168+h,56: POKE 22556+v*32,56 1800 IF ik5 THEN INPUT "Any more mirrors (y/a) "; LINE c≸: IF c≸="a" DR c≸="&" THEN GO TO 1815 1810 NEXT 1 1815 LET zg=USR 30002 1820 BEE 1,1: LET h=5: LET v=16: INK 1 1830 LET y=43: LET x1=1: LET, y1=0 1840 FOR 1=35 TO 39 1850 PLOT 1, y: NEXT 1: LET x=1 1860 IF INKEY\$="S" THEN PAUSE 200: 60 TO 1000 1870 LET zg=USR 30014: LET att=ATTR (v,h): IF att=56 OR att=120 THEN 60 TO 1900 1880 IF att=57 DR att=58 THEN GO TO 1950

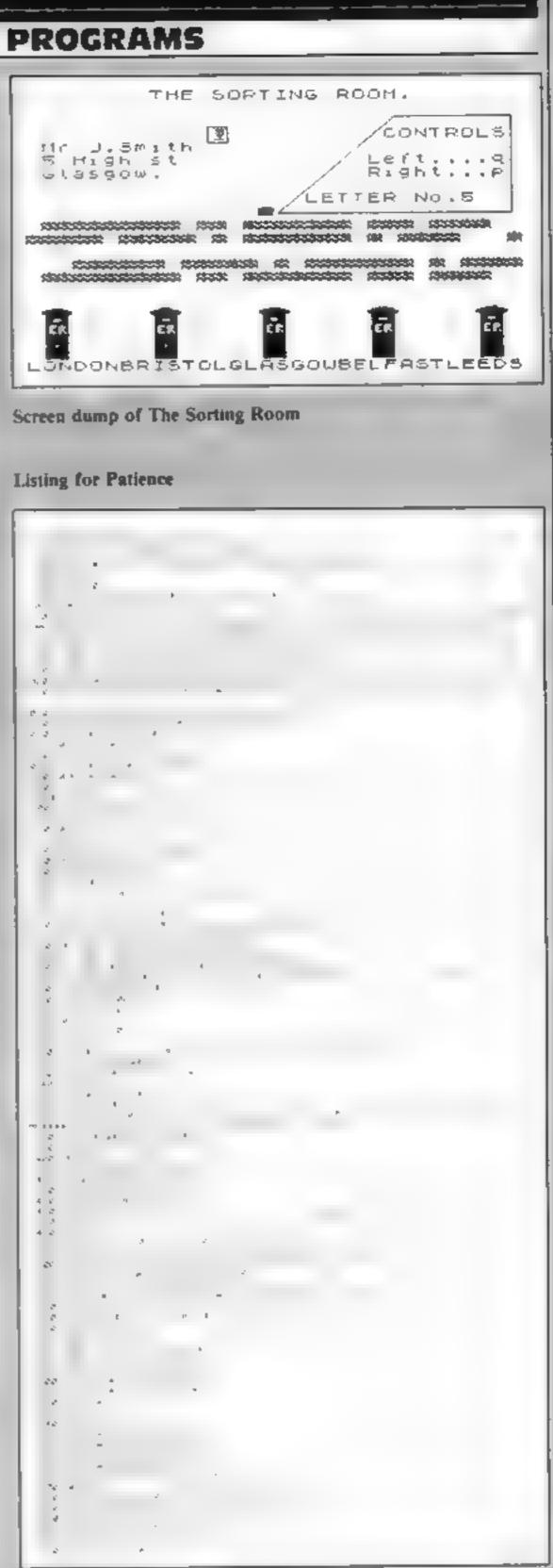
```
1890 GO TO 3000
1900 PRINT AT v,h; BRIGHT (att=120);" "
1910 LET n=8: GO SUB 5000: LET h=h+x1: LET v=v-y1
1920 GO TO 1860
1950 INK att-56: LET n=4: GO SUB 5000
1960 LET a≠x1: LET x1≠y1: LET y1=a
1970 IF att=58 THEN LET x1=-x1: LET y1=-y1
1980 GO SUB 5000: POKE 22528+h+32*v,att
1990 LET h=h+x1: LET v=v-y1: GO TO 1860
3000 REM Increment score
3010 LET score=score+att/8
3020 PRINT #1; "Your score in round ";round;" was ";att/8
3040 PAUSE 400
3050 IF round<5 THEN LET round=round+1: GO TO 1000
3060 CLS : PRINT AT 5.5; "Your total was ";score;" points."
4990 STOP
5000 FOR i #1 TO n
5010 PLOT x,y
5020 LET x=x+x1: LET y=y+y1
5030 NEXT i
5040 RETURN
```

SPECTRUM PROGRAMS

Listing for The Sorting Room

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Page 12 HOME COMPUTING WEEKLY 1 May 1984



OH MUMMY! Your party of archaeologists enter the pyramid in search of the mummes of the pharaoh's household. There are five bunal chambers containing treasure, secret scrolls, keys, royal mummles and some nasty surprises. To pass from one chamber to the next, you must find the key and royal mummy, but beware, you may uncover a guardian, who will chase your group to averge your desecration® A Machine Code game for those with nerves of steel and great courage.

Price	(LYNX)	£7 95
Price	(ZX81 and SPECTRUM)	£4.95

TANK ATTACK. A machine code game for 1/2 players, detending supplies against computer controlled tanks. This game will stretch your reflexes to the limit as you battle with the enemy tanks. They won't be able to shoot back until they have supplies, but when they do, look out!! Joyeticks required. 27.95

SPANNERMAN. Pete the Plumber has his work cut out! He's stuck in the boiler room and the pipes are leaking! Unless he can fix the leaks and stop the water rising he'll meet with a watery doom. To make matters worse, all sorts of nastes keep coming out of the woodwork!! A fantastic machine code game, that stretches you and your Lynx to the Smit!!

£7.95 (LYNX)

UTIL 1. Two very useful programs for your BBC-B. Both tested on OS 1.0 and above. Character Define gives you a very comprehensive and simple way to quickly create all manner of user defined. characters, Envelope Editor will enable you to unravel the complexities of the Sound and Envelope commands, so that you can produce exectly the sound you require. The ship! In SUB CHASE you must depth charge the wolf pack. (BBC-B OS 1.0+) Price

Price

TOTAL CONTROLING IN CONTROL OF THE

(BBC-8 OS 1.0+)

29.95

CHRISTMAS SPECIAL OFFER (mail order only for DRAGON 32) Choose any three of the following titles for £15.90. A saving of £7.95.

GAMES PACK I ALIEN BLITZ

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Phoe

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All prices include postage and packing. All cassettes despatched within 48 hours of receipt of order. Access orders welcome.

GEM SOFTWARE

UNIT D, THE MALTINGS, STATION ROAD, SAWBRIDGEWORTH, HERTS Telephone (0279) 723567/723518

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ARCADE ACTION FOR



FOR INSTANT CREDIT CARD SALES TEL (0203)667556, SEND CHEQUE OR P.O. TO P.S.S. 452 STONEY STANTON RD. COVENTRY CV6 5DG, TRADE ENQUIRIES CONTACT



WRITE OR PHONE NOW FOR OUR NEW CATALOGUE OF **OVER 600 TITLES FOR THE ATARI, BBC, COMMODORE 64,** DRAGON, ORIC, SPECTRUM AND 2X81 ALL AT DISCOUNT PRICES! AND GET AUTOMATIC FREE MEMBERSHIP OF THE SOFT TOUCH CLUB WITH YOUR FIRST ORDER.

AS A MEMBER YOU WILL RECEIVE A REGULAR NEWSLETTER CONTAINING NEWS REVIEWS, SPECIAL OFFERS, COMPETITIONS AND THE SOFT TOUCH HELPLINE TO ASSIST WITH THOSE PROGRAMMING PROBLEMS'

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Page 14 HOME COMPUTING WEEKLY | May 1984

My Secret File 32K BBC £9.95

Monard, 187 Lipper St. London

A nost an exact rep to of the Patian book written by John Astrop with the same to eliftis a database enabling the user to more secret in a mation. With two secret codes to clack the one can sheak a lock a your own

After the program has LOADed you are asked f you wish of LOAD previously saved data. If you do you can LOAD update, and then reSAVE it

this that souple. On the other hand it you want to start a new the, before you have filled the previous me, about 400 or 500

entries have to be made. The file doesn't have to be filed before it can be SAVEd the gh. There are fifty pages to choose from, including My Sira S at stics and Packet Money which shows to whom it is armed.

The complete package includes book classecte and full instructions. I loved being secretive when I was a child and if you do or indeed your child does, then I thick flys program would get a number of use in your nouses and Mill

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After a disappoint ng start, soft

51 4E T

improved beyond 4 is expectations This program demonstrates the high quality becoming standard from some You control a spaceship and must explore a series of caret inhabiled by bitarre spores destroying thit halls as you yo The phaze is complex and combined with the nast en tests your reactions and dencacy of to a h

Killer Watt

CBM 64 £7.95

A lighta 178 West St. Sheffield

Chaphically the game is of a high is andard with caves scroling from side to side Single pixe scroll is nucly implemented and movement is extremely smooth Spriles design is good i tound the mechanical ducks par reutarly at ractive And sound is pice, the theme being fora a and Fugue well, nearly

There are five skill levels and you can choose the number of protective shields on the spaceship

A game of the highest quality which offers excellent value for money and is guaranized to keep you twitching over the keybourd for many hours. Nuclone, Alligan. A W.

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playabi ity	V5 #/0
graph of	9500
value for mones	1,820,0

BC BASIC CBM 64 £57

Kama 42 Horseshoe PK Horse hoe Rd Pangbourne, Berks

BASIC 2 is adecuste, but the BM 64 otters no support to the superb graphics and source and there are no commands to structured BASIC BC BASIC first on cassel e and now in cartridge, attempts to cure this

It offers a mind bogging range of commands. I have no inten ion of uesc, bing each. The tailty is variable Commands or sound spirites and structured BASIC are ustable, big resolution commands effective to actioner complex. The mach million ode' aids are a juke Apar tom block save and DEEK a. u Dickle, they are of Linues are

ma hing code upon or would

Useful... and fun

Reviews of utilities — and a couple of programs for amusement. Our team tells you if they're worth the money

Microtext 48K Oric/ Atmos £15

Reconnect 19 The Farm Croit heylesmore, Coventry CV3 SLS

M crotext is described as an easy to use text new data processing backage. It never actually says it is a wordprocessor or it data base. Use not sulprised

When I OADed, the first thing that happened was UDEF D STATEMI NTERROR AT 20° A GON. It via count to a nonexistent one I had to LOAD the program at slow speed. I typed in few sentences to real se that it has n overwrite mode so I went ate invert mixed, which all becent wordprocessory default to mad tried to type agoin.

Being mostly at BAS c. if you

have been a better option Overal, the package farchined wear, aithough and ced the system had been i menow weaked A warm tese (515.64738) wouldn work and inviown monitor could not be used with the cossette in place and thes at \$1000 p An improvement on Sinco BANIC bit also I thought out The author appears to have trice to cram in as much as possible rather than keep a hidance. A pood product. U vou use BASIC 코 only, but too highly priced.

> 59197 759

instructions case of use graph es value for money



1 13

Bei Graph 32K BBC £14.89

Bel Tech Stanmore Ir issteat Estate Bridgenorth WV15 5HP

A flexible graph d aw og program meant for serious educational or bunness uses There are many options including we graphs barsharts, h uograms, pie charts besides farly comprehensive function plotting restors. The program can accept and store up o four sets of du a of which one can be time restated and plotted according y

The data can be entered from graphics the keyboard from a previous v stored file or even generaled by the lanct on you specify This gives you a great range of options which are very valuable Each set of data can have up to

2 values The ability to land each set of data is useful. There is also an Epson screen damp, or the disc version at least, which produces very preasant results. There are some problems however. One causes the data to he had y formatted, overlapping the places and the other prevented me from clatting a rine graph at s. – PINER OF CLAR message every time is invenitively had i we to send in the user registration and give them my problems. Dischersion £.6.45 DU

ns ruchoos case of use graphics value fot monto

beginning you have to wait. couple of seconds for hi program to adjust all the letters. That's ast for one letter and, ust to put you off, it pings every ime I then tried repaire and earch. Up came a Syntax I from typed CTRI D by mistake. Syntax Error Op Dany occasions, 1 lost a while text for ¥.1.9 no apparent reason. Hind minthere is a distinct lack o criticus software for the Oric but in surprised any software house has the nerve to market . program of this gaality. Avoid the the plage e 5.5 504 TIST ACTIONS

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HOME COMPUTING WEEKLY I May .984 Page 15

34.

Picture Book Oric £4.95

Softbacks, PO Box 257, Watford WDI HQ

Very young chedren can build up bicilities by typing in the names of (am iar objects and seeing them ap year "by pisgic" brom the child's point of view, P stare Book is an exciting new way of making pictures rather than a spelling practice this is important as it puts shale of wrating and spelling on the right. perspective. Or at least, that a idea behind this program.

Technically this program is very good compared with other educational, usually written by leachers who know the subject but do not know how to

program. One graphics are used wed and it is well fool proofed. There is facisity to SAVE and LOAD pictures created using this program.

I do agree that writing and spealing are simple means of enabing the child to do something he or she wants as the inlay card says. But whether a child who is sto. learning to spel words such as 1 TOY is capable of LOADing this program and using the **QWENTY** keyboard in another matter. 5 5.

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Reading Aid 2 48K Spectrum £17.19

James Nisbei & Co. Digwell PL, Aclwyn, Heris

this second in the senes of Pifeatures of introductory SCREENS with identical, and equaly abysmay, screep presentanon.

Because you can read, you probably aren't aware how complex it is. If your child has problems, if can be frustating to try to help because you don't inderstand why they can't do it property This may help by putiting some clues we use when cading.

Although we were taught to sound the tetters ' we don t iow because we use clues to read. quickly. Many children find this a de ficult process and this series

will help diagnose which chic are causing problems Some clues are , others are not No, it's not a mistuke, just an

exmple of the "cloze technique used. Can you supply the missing word As in Aid 1, the child types a response and, if correct, it floats into position. No fuss in made of incorrect responses. They are recorded to be printed out by an adult

Among the items dealt with, word forms, rhyme clues, antisapation, vinisat consoliant bends and endings Said's price and ummaginative presentation inske D M. this iess chan a best buy

united out	100%
ease of use	80%
display	104
va ue for money	3.5%





seisoft 5 Minuter Oday, New horpe, Fastwood, Notis-

well parkaged, impressively focumented suite of program designed for students of 13 pin and anned at O-level and ChE ou pater studies.

It features flowcharts, CESIL in involucion to machine angoage), and gates, Doth ubles, Karnaugh maps, bases and a logic processor Each is aphically diostrated and companied by enough BEEPs to drive you toad if you Spectrum is amplified)

None of the programs car cloady teach its subject, though he manual heaps it will, lowever, show up areas in which ou are weak and give pointers. n effect you are asked to espond to prompts and the omputer will draw the Dowehart, print the truth table, conculate the number in base 9 or show the logic system yearyo designed Perhaps the most valuable eature is the built in tevision dvace which considers how long ou have until your exam and in ora suitable revision for you. Add to that a basit a mode paint complete with grade st mator, and you have a really first class Dutch uncle-A useful package, but tome ections are difficult to mad and here is still some poor errol apping of user input. DM.

What will they learn from these?

Your computer as a teacher. Our experts explain how these five measured up

Reading Aid 1 49K Spectrum £17.19

James Nisbet & Co., Digswell Ph kelwyn Herts

Designed to identify specific eading problems - reversity itters and subst futing one word or another this sombre poking double tape package o nght programs seems to b amed at teachers ratace that autents.

Comprehensive notes for the leacher supervisor' detail th entences used and the options actuding the facility to print and malyse the user's problem. Brief nestion is made of the need b ask to the user about the esponses.

fiancally ventences are show th gaps and the child types in ne of the two options (appat) ady error trapped and, of th

mstructions. ase of use d search value lot money

1 10

Story Book Oric £4.95

Softbacks, PO Box 257, Watford WDI 31 Q

> The m/ov card describes this as a hallenging game that develops colory soils

When the program is run it hypiays various options. If the child chooses opposition 1 -recreate wory at this point, a story will be displayed except that all the letters are replaced by underscore characters. The child must guess the words to the story if he she gets totally stuck, the word can be revealed by pressing "?" When the whole story has been guessed and the heip facility has not been over used, a tune will be played p three part harmony? The program has facilities to creati stories and SAVE for later use. Obviously, the parent can type of a proverb or a story and SAVE if on cassette

Technically, they program to well written, foot proofed and has many useful options. If 🜒 story is long the only clue is the Mar punctuation and the game becomes rather like a wid guessing game. But it is fun to play and a child could learn a proverb or two

its better than a lot of the supposedly educational software available for the Oric today S S.

1.00 instructions. case of use фаркау. ABPRE LOL WOUCA

word is correct, it wonds its way into the gap with BEEPs At incorrect response faux through and the user is expected to try 180 11

I'm not a great believer in dressing up a educations. programs as space games, but to feel all active screeps an important This is about a a tractive as a tax return and, for parents, of questionable use There is not much point it hagnosing what a problem is t you don't know how to cure it The programs won't do that and It this price, a school would have to be well off to conside D.M

100 Instruct ons 809 page of and 111 display 40* mue for money

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PUNTERS COMPUTER

COURSEWINNER allows you to use the power of your computer to get the edge on the bookmaker The program contains a database full of detailed information on all English and Scottish flat courses. The ten leading trainers and jockeys, and effect of the draw for different weight carried and race length is detailed for each course. This information can be displayed on the screen for reference at any time.

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Recent form and starting proce Weight carried and Race length

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Trainer and jockey form for the course. Effect of the draw and of the going

Also included in the package is a utility which calculates the returns on any single or accumulator bel win or place tax paid and deducted

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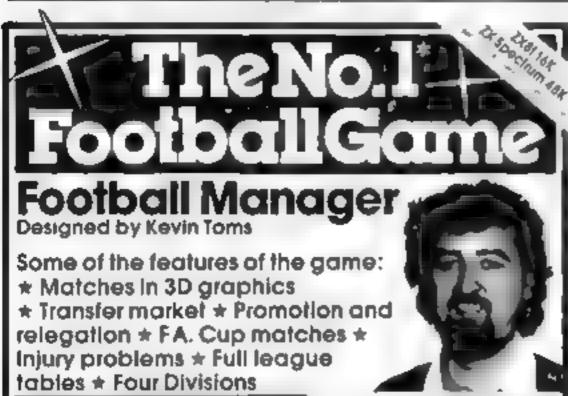
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> * ZX81 Chart Home Computing Weekly 1 8 63 and 11 83

Comments about the game from press and our customers. FOOTBALL MANA/SCR is the best game have veriseen on the Spectrum and my bersonal forvourte or or the games in any most in to the tradnary person is an excellant view of what r an be done in the field of a moder games. The advanting globy of fixs game is the short set pieces of matchinghights which is how the shak meniturning alound a pitch shooting defending and scaring if i a langular with game but people who richnoritic ke game sessions of 9 hours or so which happened on any hoppy Sunday will be grateful to know that mere sid lave to table happened on any MANAG2R has everywhich could interview of water 4 dorshive Games centarity deserve the home. Rating 19 20 (Procedo) Computing in August 1983:

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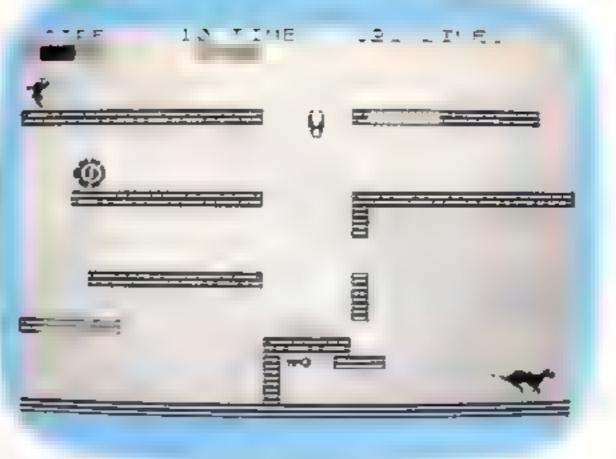
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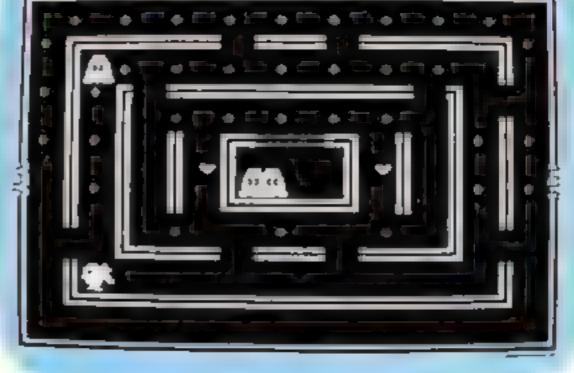
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Ms Hortense

All games above were designed and created using 48K Spectrum H U R G



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COMMODORE 64

🔚 Commodore 64 The Hobbit 🛛	5
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The Wigard & Princess 65.9	
ORIC-1	
Cinc-1/48X The Hobbit E14 5	15
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Altransport of "The Method, are identical with the tribulity	
All vote ons of "The Hobbit" are identical with regard to the adventure program. Ous to memory irritations, BBC datasets.	
version does not include graphics	
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Guttong Gotton Sord M5 £23.95

Computer Games, Goldings Hill, Loughton, Essex (G10 2RR

You play the part of a railroad bunder. First you have to lay tracks to the station and then drive the train through the stations.

The screen is divided into 24 blocks, one of which is empty, exactly like sliding block puzzles, popular some years back. Each block has a track on It and you have to move them so that the train, which is moving continuously, won't go into a dead end. It's no good simply keeping the train running as you have to collect all the passengers at the stations, located at the

edge of the screen, to go on to the next screen. There are enemy trains which try to crash into you but, but by manipulating the tracks, you can make them crash into each other.

The graphics are very nice and sounds very impressive. The game has some jolly cunes and the overall presentation is excellent. If you want a mind stimulating game which also has the addictive quality of a real ume arcade game, buy this. It is great fun to play and is refreshingly different. S.S.

90
90
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90

Step Up Sord M5 £23.95

Computer Games, Goldings Hill, Loughton, Essex IG10 2RR

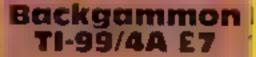
The instructions explain that you have to clumb 10 flights of stairs, jump over the obstacles or evade them with your barrier, get to the top and escape with the friendly LIO before your energy runs out. You control a cute lune ligure and make him climb states. With a quick push on the left edge of the attack batton, you can make him jump, or the right edge to make him invincible. for a few seconds.

Even on the first screen, there is a huge number of nasties, including spiders, mice, spider's webs and monsters wandering around and, at first, it can be

frustrating as you lose your three lives in a matter of seconds. But of you persevere, you will eventually get to the top to get rescued by the UFO, then there's the next screen where there's even more spiders, mice, monsters....

The characters are well defined and animation is good. However, the sprite feature is not used to its fullest. In fact, some characters aren't even sprites, but hardened arcade players could do worse than buying this highly original game. S.S.

80
70
20
80



Not Polyoptics, from Stainless, 10 Alatone Rd. Stockport, Cheshire

This opportunity to chastenge the TI was greeted enthusiastically by our household, but we were soon to be disappointed.

The program contains options to either play against the computer or another player During the first attempt at the one player game, while the computer was considering its second move, the program crashed with a Bad Value in 2010.

The second game I managed to win, but at its end the board disappeared and I was informed my score was now one, meaning had won one game. Scoring in the original game is done on 🖬 points system, the most being

For the fun of it...

Build a railway, play backgammon... two games in this collection tested by our review panel

Ouasimodo/ **Q** Bono TI-99/4A E8

Stamless, 10 Alstone Rd, Stockport, Cl'esnire.

Here's two Extended BASIC sames for the high scorers? among us Each is loaded tepara ely Ques modo requi es the use of a joystick, but Q is for keyboard only.

In Quasimodo you have five lives with which to survive an many screens as you can finging beas all the way! The purpose is to rescue damaels in divitess. On each of several creens you run and jump a ing a brick wall. Hazards to avoid are combinations of arrows, cappopbalis and holes in the wail. Points are scored for ringing a test of rescuing maiden Q Bono is a simple vet addictive game. Your mag starts at the top of a pyramid of cubes. Using four arrow keys to control his diagonal movements he must travel across all the cubes which changes their colour to cyan. He is pursued by a snake which will take one of his lives if both land on the same cube together After the first screen each cube must be vivited twice. In subsequent screens this number increases. If you've a black and white TV numbers can be shown on the cubes to indicate colour changes. 3.W.

warded for a backgammon Omitting this seems very strange, Ter particularly as the program includes an option to double.

On my third altempt everything was just going well when the display partially scrolled off the screen and the program locked. This couldn't be cleared, so I had to quit and re-load.

Fortunately, several subse-quent games passed uneventfully, but the computer proved to be a fairly pedestrian and not altogether intelligent opponent, ils view of the limited memory available, the program overall seems reasonable, but has utile to offer an experienced player. Needs Extended BASIC

instructions playability graphics value for money

Shakey/ **Barrier Attack** Sord M5 £8.95 Computer Games, Goldings Hill, Loughton, Essex IG10 2RR

where you control a hangry scroling game hour ship at the snake that feeds on frogs whilst avoiding cocks and the electrified. fence. Also, as Snakey grows he the attack button you can clear at restricts his own movement. The snake is very colourful, sound is boring, manual is fast and key response is good. In the tany memory of the standard M5, it even has a joypad option and difficulty levels

The second game is rather playability disappointing in comparison. The blurb says that in the year value for money 4501, the uneasy cosmic peace is about to be shattered by barbanans, the uncouth warriors

of the dreaded Oasys Squadron. You, as the commander of the 17th zone Defence Battalion, must prevent them from destroying your ship and overmoning your section of the galaxy, and so on Sounds, incredibly exciting doesn to it? 👔 Snakey is a typical snake game Well, it's a simple vertical a top of the screen can be movedseft and right. By pressing 1 or path. Graphics are simple and

18

5 5.

950%

604

60%

70%

To conclude, not a bad package, second game could have been better instructions

graphics

80例 instructions piayab ny BUT 75 % graph cs. value for money 100%

12

J W.

60%

50%

50.9%

80%

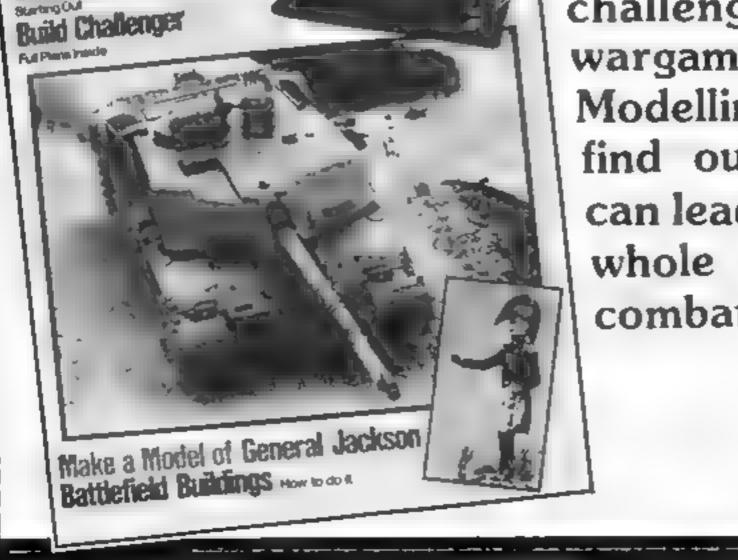
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HOME COMPUTING WEEKLY 1 May 1984 Page 23

Listing for Pyramid

Find the 1 REM 2 REM 3 REM ********** 4 REM **/P Y R A M I D** toesca 5 REM ******* 6 REM #*********** 7 REM ****************** 8 REM* S. ROGERS 10 PAPER0: INK7: CLS 20 PRINTCHR\$ (20); CHR\$ (17); CHR\$ (6) 27 RESTORE Mouldfi 30 GOSUB 3000 40 GOSUB 3540 45 X=4:Y=25:MX=23:MY=8:B0=8000 47 CLS 50 PLOT20,2,"1k" 60 PLOT19,3,"ljjk" 70 PLOT18,4,"] k" 80 PLOT17,5,"1j %& jk" 90 PLOT17,6,"1j jk" 100 PLOT16,7,"ljj jjjk" 110 PLOT16,8,"1 jk" 120 PLOT15,9,"15 jjk" 130 PLOT14,10,"1jjjjjj)jjk" 140 PLDT13,11,"lj jjj 150 PLOT12,12,"lj))) 160 PLOT12,13,"13 3 jjj k" 170 PLOT11,14,"ljj j jjj jk" 180 PLOT11,15,"lj) ijj) 190 PLOT10,16,"1))) jj jk" 200 PLOT10,17."ljjjjjjjjj jjj jk"

 210 PLOT7,18,"1jj
 1jj jk"

 220 PLOT8,17,"1jjj
 jji k"

 230 PLOT7,20,"1j
 jjijjjjj jk"

 240 PLOT6,21,"1jji jjijjjjj
 jjijjjjjjjk"

 250 PLOT5,22,"ljjjjj j 260 PLOT4,23,"ljjjjjj ji jik" 280 PLOT26,25,"j 11" 300 PLOT27,0, "BONUS"

ORIC PR

Here's a treat fo two games t you emerge wea Pyramid? And the deadly atte Spike

liwe

edit t

```
305 PLOT27,1,"SCORE"
 310 PLOT27,2,"LIVES"
 312 PLOT32,0,STR$(B0)
 315 PL0732,1.STR$(SC)
 317 PLOT32,2,STR$(LI):K$=KEY$
 318 IF BD=0 THEN 1800 ELSE B0=80-25
 319 PLOTX, Y, " "
 320 IFSCRN(X-1,Y)=105 THEN SC=SC+150:D=D-1:X=X-1:60T04
00
 330 IFK$=CHR$(8) AND SCRN(X-1,Y)<106 THEN X=X-1:601040
Ø
 340 IFSCRN(X+1,Y)=105 THEN SC=SC+150:D=D-1:X=X+1:60T04
00
 350 IFK$=CHR$(9) AND SCRN(X+1,Y)<106 THEN X=X+1:60T040
0
 360 IFSCRN(X,Y+1)=105 THEN SC=SC+150:D=D-1:Y=Y+1:GOT04
20
370 IFK$=CHR$(10)AND SCRN(X,Y+1)<106 THEN Y=Y+1:GOT040
0
380 IFSCRN(X,Y-1)=105 THEN SC=SC+150:D=D-1:Y=Y-1:G0T04
80
```



Jk"

Page 24 HOME COMPUTING WEEKLY I May 1984

GRAMS

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Keys

sh to

r Oric owners type in. Will thy from the an you avoid tions of the sh?

390 IFK\$=CHR\$(11)AND SCRN(X,Y-1)<106 THEN Y=Y-1 400 IFY=7THEN GOSUB 2000 410 IFX<=1 THEN X=2 420 PLOTX, Y, "h" 430 PLOTMX, MY, " " 450 IFMY<Y AND SCRN(MX,MY+1)<106THEN MY=MY+1:GOTD510 460 IFMX<X AND SCRN(MX+1,MY)<106THEN MX=MX+1:GOTD490 470 IFMY>Y AND SCRN(MX,MY-1)<106THEN MY=MY-1:GDT0490 480 IFMX>X AND SCRN(MX-1,MY)<106THEN MX=MX-1 490 IFMX<=1 THEN MX=2 510 PLOTMX, MY, "!" 520 IFSCRN(X,Y)=33 THEN 1900 530 GOT0312 1800 PLOTX, Y, "m": 605UB2200 1810 LI=LI-1: IFLI<=0THEN 2100 1820 CLS: PLDT9, 13, "YOUR BONUS HAS RUN OUT": WAIT50 1830 PLOT11.15.N\$:WAIT90 1835 GOSUB2600 1840 GOT045 1900 PLOTX, Y, "m": GOSUB2200 1910 LI=LI-1: IFLI<=0THEN 2100 1920 CLS: PLOT9 ,13, "THE MONSTER GOT YOU": WAIT50 1930 PLOT11,15,N\$:WAIT90 1935 GOSUB2600 1940 GOT045 2000 IFD<=0 THEN 2020 2010 Y=8:RETURN 2020 IF LIKS THEN LI=LI+1 2030 L=L+1:SC=SC+B0:G0SUB 2600 2035 CLS 2040 PLOT9,13,CHR\$(142)+" CONGRATULATIONS" 2050 PLOT9,14, CHR\$(142)+" CONGRATULATIONS" 2060 PRINT: PRINT YOU HAVE GOT "L" PARTS OF THE LEBASI" :PRIST 2070 PRINTSPC(14) "TREASURE":WAIT200 2080 PRINT: PRINTSPC(11)N\$:WAIT100 2070 GOT045 2100 CLS 2105 PRINT"YOU HAVE NO MORE LIVES LEFT"; PRINT 2110 PRINT YOUR SCORE IS "SC:PRINT 2120 PRINT YOU HAVE "L" PART(S) OF THE LEBASI TREASURE 2130 PRINT: PRINT"GET READY FOR ANOTHER GAME"

W. F Salah	2140 WAIT 2000:GOTO 27
	2200 FORT=12 TO 1 STEP-1:WAIT10
	2230 MUSIC1,6,7,10
The second s	2240 NEXTT:PING
	2250 WAIT100
and the second se	2260 RETURN
	2600 IF SC>8000 THEN D=5 ELSE D=4
	2610 IF SC>16000 THEN D=6
	2620 IF SC>24000 THEN D=7
	2630 RETURN
	2990 REM GRAPHICS + VARIABLES
	3000 FORT=46344 TO 46351; READG: POKET, G: NEXTT
	3010 FORT=46376 TO 46391: READG: POKET, G: NEXTT
	3020 FORT=46912 TO 46919: READG: POKET, G: NEXTT
	3030 FORT=46920 TO 46927: READG: POKET, G: NEXTT
	3040 FORT=46928 TO 46935: READG: POKET, G: NEXTT
The second se	3050 FORT=46936 TO 46943: READG: POKET, G: NEXTT
A MARTIN AND A MARTIN	3060 FORT=46944 TO 46951; READG: POKET, G: NEXTT
the second second	3070 FORT=46952 TO 46959: READG: POKET, G: NEXTT
iner -	3100 DATA 20,42,9,20,28,28,34,34
	3110 DATA 0,1,3,15,30,60,62,63,0,0,32,56,60,62,62,62

HOME COMPUTING WEEKLY 1 May 1984 Page 25

ORIC P

3120 DATA 12,18,12,15,12,20,34,51 3130 DATA 2,10,14,10,2,2,7,7 3140 DATA 63,63,63,63,63,63,63,63 3150 DATA 32,48,48,56,60,62,62,63 3160 DATA 1,3,3,7,15,31,31,63 3170 DATA 4,4,31,4,4,4,14,31 3180 SC=0:LI=3:D=4 3190 N#="HERE WE GO AGAIN" 3200 RETURN 3540 CLS:PRINTSPC(11) "P Y R A M I D" 3550 PRINT: PRINT: PRINT 3560 PRINT"THE OBJECT OF THE GAME IS TO GET IN":PRINT 3570 PRINT"THE FIRST GAME AT LEAST 4 KEYS FROM"; PRINT 3580 PRINT "THEN ON EVERY 8000 POINTS YOU NEED ": PRINT 3585 PRINT"ONE EXTRA KEY UNTIL YOU NEED ALL 7. ": PRINT 3570 PRINT"YOU THEN GO TO THE ROOM AT THE TOP":PRINT 3600 PRINT OF THE PYRAMID TO GET A PART OF THE ": PRINT 3610 PRINTSPC(11)"LEBASI TRESURE" 3620 PLOT13,26, "PRESS A KEY" 3630 GETAS: RETURN

Listing for Electric Eci

1 REM ELECTRIC EEL by Simon Overy
GOSUB9000
20 TEXT:CLS:PAPER1:INK0
21 PRINTSPC(50); CHR\$(4); CHR\$(27);
22 PRINT"NELECTRIC EEL"; CHR\$(4)
23 SOUND1,37,0:SOUND2,75,0
24 PLAY3,0,1,4000
25 PLOT13,10,"By Simon Overy":WAIT300
40 GOSUB160: GOSUB7000: GOSUB6000
50 GOSUB5000:GOSUB4000
90 IFYN#="Y"THEN40
95 POKE48035,7:CLS:EXPLODE:END
160 CLS: PAPER3: PRINTSPC (76)
170 PRINT, "You are an ELECTRIC EEL "
180 PRINT,"and must swim around the "
190 PRINT, "aquarium eating MOULDFISH"
200 PRINT,"([) but avoiding SPIKE "
210 PRINT."FISH(\).the place sides"

by Sean Rogers You have just had the mis- fortune of being transported to the inside of a pyramid from which there seems to be no escape How It works 10-27 set colour, turn off caps, cursor and key-click, reset DATA pointer 30-40 branch to user-defined graphics and instructions 45 sets variables 47-317 set up screen 318-420 move you around screen, check for keys, plot you on screen
 430-530 move monster and check if you have been killed 1800-1940 routine for when bonus runs out and for when the monster gets you 2000-2090 check if you have enough keys if you make it to the top 2100-2140 message when all lives lost 2200-2260 music 2600-2630 routine to see how many keys are needed 3000-3170 user-defined graphics 3180-3190 more variables 3540-3630 instructions
You must run around and collect the required number of keys and then make your way to the top to get a part of the Lebasi treasure. Do this as fast as possible and you'll get a good bonus. By the way, watch out for the monster!

Main variables X.Y your position BO bonus LI hves SC score MX,MY monster's position

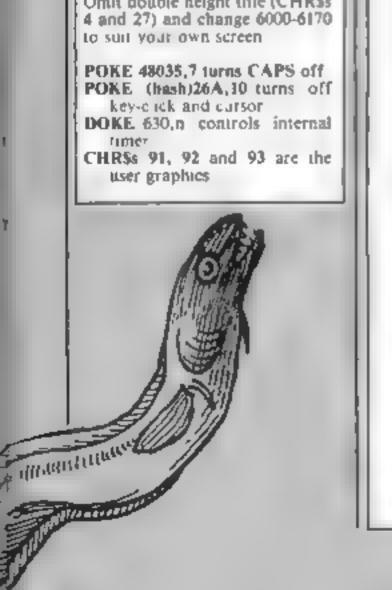
```
ISH( \ ),the glass sides
220 PRINT, "and your own tail!
230 PRINT," A loud noise indicates"
240 PRINT, "that you must swim to the"
250 PRINT, "top before your oxygen
260 PRINT, "runs out.Once you are
270 PRINT, "fully oxygenated you can "
275 PRINT, "either turn left or right"
276 PRINT, "You can only surface when"
280 PRINT, "in need of oxygen .*:PRINT
285 PRINT" HINT: Spikefish have side suction (?!?":
290 FORI=19T024:PLOT1,1,21:NEXTI
300 PLOT2,19, "SCORING: -"
310 PLOT9,21,"The deeper the better!"
320 PLOT2,23, "ARROW KEYS TO MOVE"
330 PLOT1,25,"Hit any key for a swim....":GETK$
340 FORI=11015:SOUND1,T(I)+10,0
350 SOUND2,T(I)*100,0:SOUND3,T(I)*200,0
360 PLAY 7,0,1,2000:WAIT35:NEXTI
370 RETURN
```

Movement is by the cursor keys. The pyramid might look a bit like a Christmas tree, but I needed the space. When your bonus drops below 1,000 the fourth digit will stay at 0 and so on. This will make it harder to notice when your bonus is low Hints on conversion PLOT in Oric BASIC is the same as PRINT AT The Oric uses an 8 x 6 grid for user-defined graphics compared with the 8 x 8 of most other computers.

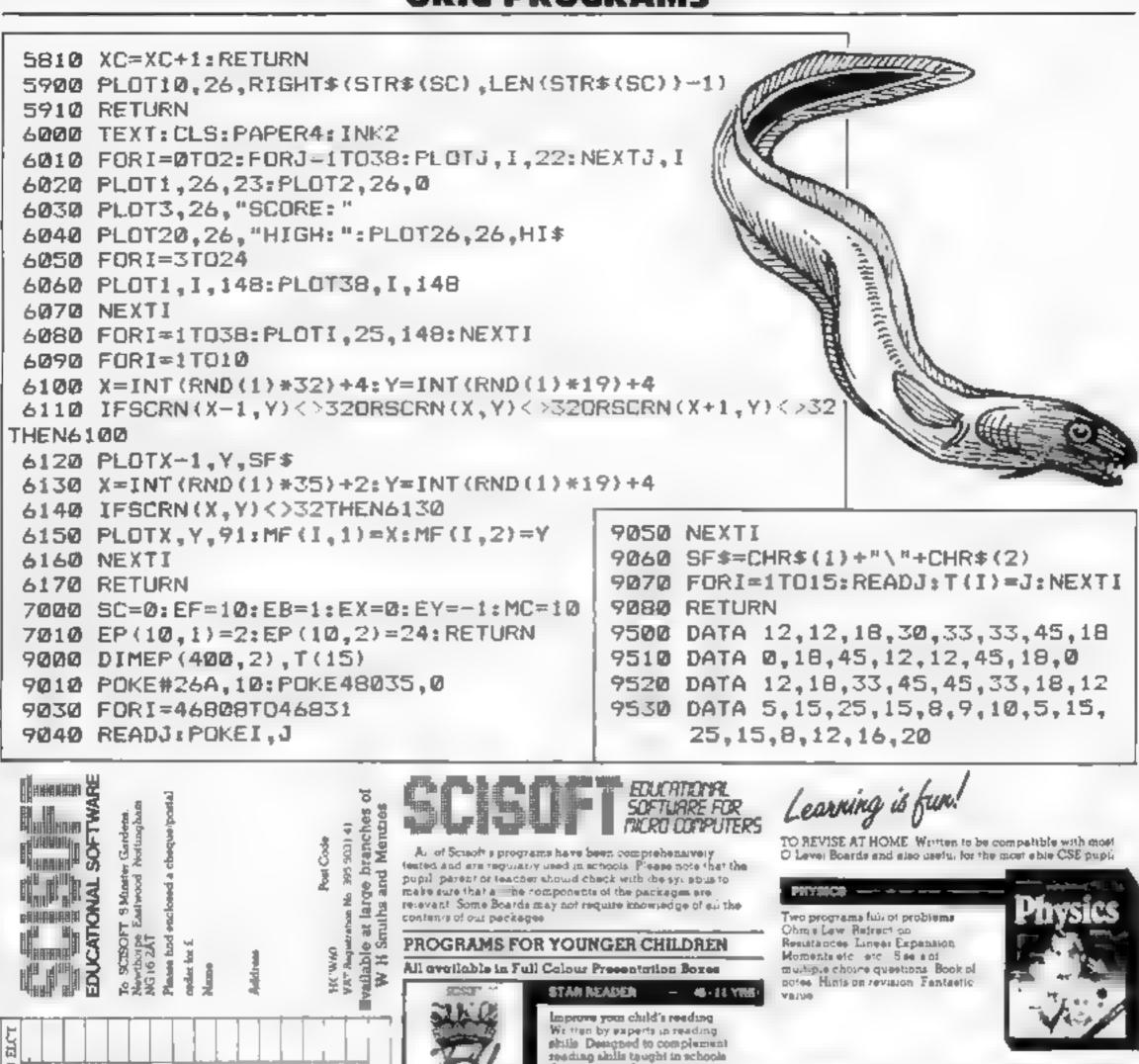
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GRAMS

Electric Eel		
		FORI=100T0500STEP2
by Elmon Overv		SOUND1,1,10
Simon Overy		NEXTI
You are an eet in a large aquarium and to stay alive you		CLS: PAPERS: INK4: PRINTCHR#(4): ZAP
must swim about eating one		PRINTSPC(160); CHR\$(27); "JS C O R E] "; STR\$(SC)
kind of fish but avoiding the		IFSC>HITHENHI=SC:HI*=RIGHT#(STR#(SC),LEN(STR#(SC)
other type.)-1)	
		PRINTCHR\$(4)
How it works		PLOT1,20,"Hit 'Y' for play , any other to stop."
160-330 sustructions		K\$=KEY\$:GETYN\$:RETURN
340-360 tune 4000-4080 end of game		DOKE630,1600
5000-5910 main game routine		REPEAT RR=RND(1)
6000-6170 display start screen 7000-7010 set game variables		IFRR<0.01ANDOX=0THENOX=1:XC=0
9000-9530 initialisation and aser		IFOX=1THENGOSUB5800
defined graphics		SS=SCRN(EP(EF,1),EP(EF,2))
		IFSS=32THENG0SUB5070:G0T05055
A loud continuous noise tells		IFSS=91THENGOSUB5180:GOT05055
you that you are short of oxygen and must swim to the		SS=1:PLOTEP(EF,1),EP(EF,2),93
surface within a certain time		UNTIL MC=0 OR SS=1 OR XC=35
The deeper the Mouldfish are		RETURN
for cating them. The cel		PLOTEP(EF,1),EP(EF,2),93
increases in length every time it		PLOTEP(EB,1),EP(EB,2),32
cats something.		EF=EF+1:EB=EB+1
The game ends when either your oxygen runs out, you are		IFEF=401THENEF=1:WP=399:G0T05125
hit — or touched horizontally		IFEB=401THENEB=1
- by a Spikefish, or there are		WP = -1
no Mouidfish left.		K\$=KEY\$:IFK\$<>""THENGOSU85500
[]	5130	EP(EF,1)=EP(EF+WP,1)+EX:EP(EF,2)=EP(EF+WP,2)+EY
Variables SC present score		IFDEEK (630) >1000THEN5170
HI high score		PLOTMF (MC, 1), MF (MC, 2), 32: MC=MC-1
OX and cates oxygen needed		DOKE630,1600
XC counter for oxygen left FP(I,J) position of ec.		RETURN
EF,EB from, back of eel	5180	PLAY 7,0,1,2000
ME(1,3) position of Mouldfish MC counter for Mouldfish left	5190	SOUND 1,100,0
FX,EY direction of cel	5200	SOUND 2,500,0
T(I) tune array	5210	SOUND 3,999,0
1		SC=SC+(10+EP(EF,2)):GOSUB5900
Hints on conversion		FORI=1TOMC
Leave out all the POKEs and use		IFMF(I,1) = EP(EF,1) ANDMF(I,2) = EP(EF,2) THENII = I
your own computer's clock. Omit double height title (CHRSs	5250	NEXTI
4 and 27) and change 6000-6170	1	PLOTMF(II,1),MF(II,2),32
to suit your own screen	5270	X=INT(RND(1)*35)+2:Y≈INT(RND(1)*22)+3
POKE 48035,7 turns CAPS off	5280	IFSCRN(X,Y)<>32THEN5270
POKE (hash)26A,10 turns off key-cick and cursor	5290	MF(II,1)=X:MF(II,2)=Y:PLOTX,Y,91
DOKE 630,n controls internal	5300	IFEB>3THENEB=EB-3
CHR\$s 91, 92 and 93 are the	5320	II=0:DOKE630,DEEK(630)+350
user graphics	5330	RETURN
	5500	K=ASC(K\$)
Siles a		IFK=8THENEX=-1:EY=0
		IFK=9THENEX=1:EY=0
		IFK=10THENEX=0:EY=1
ALC: A CONTRACT OF		IFK=11THENEX-0:EY= 1
		RETURN
		EP(EF, 2) = EP(EF, 2) + 1
A		TT=DEEK(630):GETK\$:GOSUB5500:DOKE630,TT
AMA		EP(EF,1) = EP(EF,1) + EX
		EY=0:0X=0:XC=0
annanan		RETURN
1		IFEP (EF, 2) = 2THEN5700 COUND1 1000 $0 \cdot COUND2 - 300 0 \cdot PLAY3 0 - 1 - 2000$
11/1	3902	SOUND1,1000,0:SOUND2,300,0:PLAY3,0,1,2000



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U.S. SCENE

Sales slow for IBM micro

Let's start this week's column with a few items of general interest. On a seemingly contradictory note, IBM has announced that it expects to increase production of its personal computers by about 300 per cent this year. At the same time, dealers selling the new PC jr. have stated that their sales have been running far below expectations. I feel the main reason for this is a contradiction between the price of the unit and its capabilities.

For obvious reasons, IBM did not want to make the machine compatible with its big brother the PC. Yet most dealers feel that they could sell lots more of the machines if they came with a better keyboard, more memory expansion capability, and a second disc drive. With all these limitations, coupled with an over-\$1,000 price tag, the machine seems to be suffering from a confusing market image. Business users look to it to be used as a small business computer, yet the Apple lie or the Kaypro (to cite but two examples) cost less while offering more. On the other hand, in its most basic form, the machine is still very expensive and limited in performance compared with other units designed for use in the home.

Apparently IBM has loads of the machines awaiting shipment in various warehouses. In order to improve sales, some dealers have been discounting jr. systems as much as \$300 down from the \$1,700 list price, and including up to four free software packages. Other dealers are offering the \$669 machine (in its most basic form) for free if the purchaser buys a complete system. It appears as though IBM is waiting to let the marketplace decide into what niche the machine will fit, and is also waiting to see what sort of software will be developed for it. This is no surprise as this is exactly the same approach it used when the PC was debuted

One thing is for sure: with such a fabulous marketing budget and the name IBM behind it, the firm need not produce the best product in order to survive. We shall certainly see what happens.



I always wanted to know exactly how much money schools were spending on computers — and now I have a fairly good idea. A recent study, called Microcomputer Hardware and Software in the El-Ht Market, 1983-87 has just been completed by Knowledge Industry Publications, of White Plains, New York, The Elstands for elementary and the Hi stands for junior and high schools, by the way. Among other interesting statistics, we learn that these schools bought \$448m-worth of microcomputer equipment last year of which only \$38m was spent on software Schools purchased about 180,000 microcomputers, bringing the total in use to approximately 400,000. The study guesses that this cumulative total could rise to as much as 2m units in use by the end of 1987. Apparently more than two-thirds of all schools have at least one desktop computer. So what is in use? Apple, Radio Shack (Tandy to you), and Commodore supplied 87 per cent of all computers purchased by schools last year. No surprise there, I suppose. This study, by the way, did not mention either the number of items or the dollar value of computers and software that has been donated to schools. Now that would be an interesting statistic!

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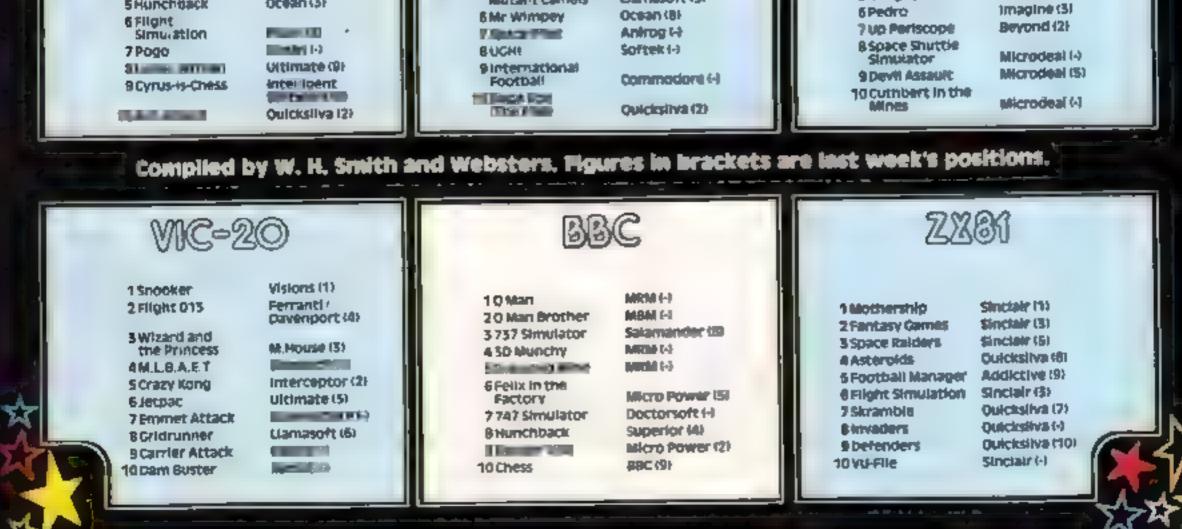
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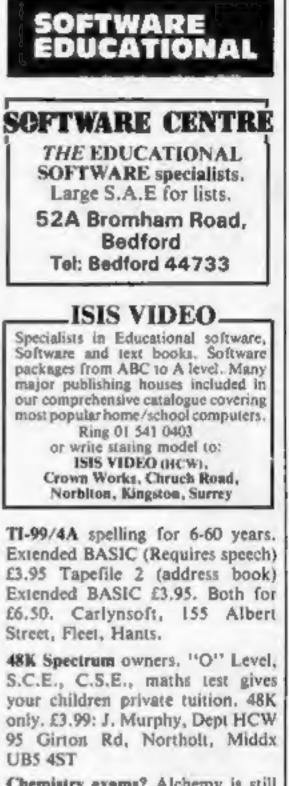
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MATRIX Jeff Minter has taken Gridnumer – the game that topped besteeler charts in USA and UK – and created an avesome securit. Graphically superb, it features multiple screens, new elems and attack waves, mystery bonuses, renegade humanoids, delexor fields, diagonal tracking, coundown/panic please and much, much more hasked into 20 mind-zapping zones and scoomparied by incredible sonics. K suparison required. Available for Commodore 64 \$7.50 and VIC-20 \$6.

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Active lawshimolway Mow your way through as many of the 14 lawns as you can before the pursuing neighbour intrieves his mower Set your dog onto the neighbour to help you cull of fight spots and stort annoy the gardener. Try not to plough through the head flower beds or by the dot pour mover the head flower beds or E7.50

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